



CHAPTER I

INTRODUCTION AND BACKGROUND

1.1 Introduction and Background

Since 1958, “Dengue haemorrhagic fever (DHF)” has been one of the crucial health problems that threatening Thai people health’s. The first patient was found in Bangkok (Chareonsook, 1995). According to the Epidemiology Department, Ministry of Public Health, in 2001 , the number of DHF patients was 139,355 cases and the mobility was 224.3 0/100,000 population. Thailand, southern region reported 26,558 cases mobility was 314.98/100,000 population, central region reported 57,567 cases; mobility was 282.08/100,000 population, northern region reported 27,562 cases; mobility was 235.87/100,000 population, and northeastern region reported 27,668 cases mobility was /100,00 population.

Only in Krabi province, in the year of 2000, there were 152 cases reported and its mobility was 47.5/100,000 population. Later in 2001; 1,209 cases or mobility was 329.5/100,000 population were reported, 6 deaths of DHF and fatality rate was 0.5/1,000 population, were also reported. In 2002; 1,924 cases or 517.5/100,000 population, 10 deaths and fatality rate of 0.98/1,000 population, in 2003; 379 cases or mobility was 141.0/100,000 population, in 2004; 289 cases or mobility was 75.91/100,000 population, were respectively reported.

In Klongthom District, in 2000; 12 cases were reported with the morbidity rate of 20/100,000 population for its mobility. Later, in 2001; 226 cases; 359.10/100,000

population, in 2002; 342 cases; mobility was 570.0/100,000 population, and 5 case mortality 8.33/1,000 population for fatality rate, in 2003; 23 cases; mobility was 36.8/100,000 population, in 2004 it was found 28 cases; 43.69/100,000 population, were also recorded. In year 2005; there were 134 cases, mobility 211.92/100,000 population were reported. According to disease epidemiological principle, it explained that in Klongthom District, DHF epidemic was biennial (every two years). Hence, it was predicted that in 2005, DHF would dramatically spread again.

For DHF mobility in year 2004, classified by ages, it was reported as follows; patients who were

- Under 5 years of age = 45.60/100,000 population.
- 5-14 years of age = 97.50/100,000 population.
- 15-24 years of age = 42.10/100,000 population.
- 25-34 years of age = 30.50/100,000 population.
- 35-44 years of age = 30.65/100,000 population.
- 45-54 years of age = 7.50/100,000 population.
- 55-64 years of age = 30.55/100,000 population.
- 65 years of age and higher = 0.50/100,000 population.

Referred to the report of Bureau of Epidemiology, the prevalent group was among patients who were chronically at 5-14 years of age, and under 4 years of age. DHF was predominant in rainy season, especially in May to September. The most important vector of Dengue virus was "*Aedes aegypti*" mosquito. The feeding time of this vector was in the day time, this was a reason why it was prevalently transmitted to students in many schools. In case that these schools were the favorable vector's habitats, the DHF epidemic would be predominant among students, and it would be

the crucial educational problem of our country. As Somprayoon (1989) said to be accomplished the educational objectives, it was depended on the good health status of young students. It was meant that students performed their best education if they were healthy. Then it was needed to realize a health promotion among these students. If students were not in a good health, even though an excellent teaching and learning system were provided, an educational accomplishment would not be reached. This was considered like an educational vanity. To reach an educational accomplishment, students had to integrate what they had learned into the application of their daily life for being beneficial both to themselves and their communities. This was a reason why students especially in primary school level should be appropriately developed and improved their knowledge, attitudes and well performance as fundamental habits, as a result the realization of their good health status and that of their family would be initiated. As these students were the futures of our community and of the whole country.

The efficient way to prevent and control of DHF was the surveillance and control of disease vector's breeding sites. In the past, vector control was more dominant than vector's habitats control. Consequently, it was found that "*Aedes aegypti*"; disease vector was under control in a very short period, also utilization of chemical insecticides was very harmful to bio-environment. It leaded long term impacts. On the other hand, the control of vector's habitats was not only generating a long term success but also encouraging public to participate in activities of controlling vector's habitats. This method caused no harms to public health and environment. Also, it was very cheap and safe in the aspect of expenses. If we continuously and seriously implemented these activities and expanded this method to all over the

country, the decrease in number of DHF patients and case rate were also initiated. (Chunhasuttiwat, 1994).

In 2003; the Ministry of Public Health, in cooperation with the Ministry of Education, was first conducted “Youth Empowerment Against Dengue Haemorrhagic Fever Project”. This project aimed to encourage youth especially students to realize and aware of surveillance, control and elimination of *Aedes aegypti* mosquito habitats, both at their houses and schools. It was done by integrating knowledge of prevention and control of DHF into the studying-learning curriculum. Also, it was initiated the continuous survey and control mosquito habitats activities in every Friday.

1.2 Study Population

Students from

Primary school level: Grade 3rd -6th

Since the Ministry of Public Health had conducted “Youth Empowerment Against Dengue Haemorrhagic Fever Project” for two years, the researcher as a health official who participated in this project at Klongthom District area, was very interested in the study of evaluation of performance and continuation of the project. The aspects of study was composed of a coverage of DHF prevention, operational continuation, problems and difficulties and project’s results, i.e knowledge, attitudes, and performances of students in primary schools; grade 3rd – 6th . Also, the evaluation of disease vector’s larva was very interested to conduct a study. As a consequence, its results would be beneficial for promoting and improving DHF prevention and control project, and initiated its objectives accomplishment.

1.3 Research Questions

1. How are knowledge, attitudes and performance of students in grade 3rd -6th , primary schools; Klongthom Neua Sub-district, Klongthom District, Krabi Province, towards prevention and control of Dengue hemorrhagic fever?
2. What are factors related to knowledge, attitudes and performance of students under the “youth Empowerment Against Dengue hemorrhagic fever” at Primary school level; Klongthom Neua Sub-district, Klongthom District, Krabi Province?

1.4 Research Objectives

1. To evaluate knowledge, attitudes, and performance of students under the “Youth Empowerment Against Dengue haemorrhagic fever” at Primary school level; Klongthom Neua Sub-district, Klongthom District, Krabi Province.
2. To know factors that related to knowledge, attitude and performance of students under the “Youth Empowerment Against Dengue hemorrhagic fever” at Primary school grade 3rd -6th ; Klongthom Neua Sub-district, Klongthom District, Krabi Province.

1.5 Specific Objectives

1. To measure (level of) knowledge, attitude and performance of students under the “Youth Empowerment Against Dengue haemorrhagic fever” at Primary school level: grade 3rd – 6th, Klongthom Neua Sub-district, Klongthom District, Krabi Province.

2. To study factors affected knowledge, attitudes and performance of students under the “Youth Empowerment Against Dengue haemorrhagic fever” at Primary school level: grade 3rd – 6th, Klongthom Neua Sub-district, Klongthom District, Krabi Province.
3. To evaluate satisfaction towards project implementation of students under the “Youth Empowerment Against Dengue haemorrhagic fever” at Primary school level: grade 3rd – 6th, Klongthom Neua Sub-district, Klongthom District, Krabi Province.

1.6 Hypotheses

1. Students from schools where “Youth Empowerment Against DHF Project” was continuously implemented, develop and improve their knowledge, attitudes, performance of DHF prevention and control.

The prevalence of *Aedes aegypti*'s larvae; its Container Index or CI, among schools that implemented “Youth Empowerment Against DHF Project”, is different; before and after project implementation.

2. Students of schools in Klongthom Neua Sub-district area, are satisfied with “Youth Empowerment Against DHF Project” implementation.

1.7 Research Frame

This study was conducted among students at primary schools level: grade 3rd – 6th; educational year 2005. All selected schools were public schools where “Youth Empowerment Against DHF Project” was implemented; in Klongthom Neua Sub-

district, Klongthom District, Krabi province. The total of selected students was 300 students.

1.8 Limitation

It was strongly needed to inform and ask for an authorization from selected schools before conducting a surveillance of *Aedes aegypti*'s larvae. This might cause an adjustment and improvement of project activities. Anyway, the researcher will, in advance, inform directors of studied schools that there would be no impacts towards all studied schools.

It may take such a long time for teachers and students to fill all questionnaires, then to prevent the disturbance their studying and learning period, the questionnaires will be conducted during the breaks of each class.

1.9 Research Design

This study is a descriptive study

1.10 Benefits:

1. Knowing of knowledge, attitudes and performance towards “Youth Empowerment Against DHF Project” of students at primary school level: grade 3rd-6th.
2. Knowing of factors related to knowledge, attitudes and performance towards “Youth Empowerment Against DHF Project” of students at primary school level; in Klongthom Nuea Sub-district, Klongthom District, Krabi province.

3. The result will be useful for DHF prevention and control project of relevant organization, also it could be beneficial to apply this result to control measures for DHF and vector borne diseases caused by insects in the future.

1.11 Definitions

Evaluation: Evaluation of “Youth Empowerment Against Dengue Haemorrhagic Fever Project” that implemented by primary schools. It is an on-going or formative evaluation. The evaluated points are progress, coverage, continuation and problems and difficulties of DHF prevention and control project that was implemented by primary schools students. Also, it is to measure knowledge, attitudes, and performance of students, at primary schools: grade 3rd-6th; who conducted this project. At last, it is also to survey the prevalence of *Aedes aegypti larva* found in water storage containers at schools.

Student at the learning age: Students who are at primary school level: grade 3rd-6th; in Klongthom District, Krabi province, and who have participated in “Youth Empowerment Against Dengue Haemorrhagic Fever Project”

A project’s activities continuation: The implementation of DHF prevention and control project since the first semester, i.e., studying-learning process related to the project and survey and control of *Aedes aegypti larvae* habitats at homes and schools. The researcher uses the criteria for measuring project continuation that created according to the standard criteria of DHF prevention and control manual of Communicable of Disease Control, the Ministry of Public Health, 1993 . The criteria was reviewed and revised by experts from Communicable Diseases Section,

Communicable of Disease Control, the Ministry of Public Health. It is divided as follows:

1. The continuation of studying-learning process in classes. Teachers have to provide knowledge of DHF to students at primary schools level: grade 3rd-6th; more than one time per 2 months, during the disease epidemic; May-December 2004 .
2. The continuation of survey and control of *Aedes aegypti* larvae activities at homes and schools. Students have to conduct this activity more than or equal one time per week. Also they have to record the result in the manual of container Index *Aedes aegypti*'s larva.

A prevalence of Aedes aegypti larvae: It is an entomological index. What is for measuring a prevalence of *Aedes aegypti*'s siphons found in schools and households water storage containers. A survey of *Aedes aegypti* larvae prevalence is very needed and important because it is very helpful for knowing the change of prevalence level of the disease vector in different seasons also the number of vector's habitats. This will be very helpful and beneficial for planning and decision making of generating any prevention and control vector habitat activities.

Satisfaction: The emotional status, i.e., favor, like and having positive attitudes towards one matter that caused by individually evaluation or experiences related to that matter. For example;

Satisfaction towards a project: It means that having favorable and positive attitudes towards a project. This emotional status is a result of individually experienced evaluation.

Satisfaction towards a performance: It means that performer having favorable and positive attitudes towards factors related to their performances, and it initiates an efficient works.

Satisfaction towards a support: It means that having favorable and positive attitudes towards a support. It is a result of individually working experienced evaluation.

1.12 Variables:

Independent Variables:

1. Demographic factors: gender, age, level of school.
2. Frequency of learning-studying activities
3. Prevention and control of elimination of *Aedes aegypti* habitats at homes and schools, including record a result.

Dependent Variables:

1. Knowledge, attitudes, and performance related to prevention and control of DHF among students at grade 3rd -6th; primary schools.
2. Satisfaction of students who participated in “Youth Empowerment Against Dengue Haemorrhagic Fever Project”.

Prevalence of *Aedes aegypti* larvae found in house Index and container Index water storage containers.

1.13 Conceptual Frame Work

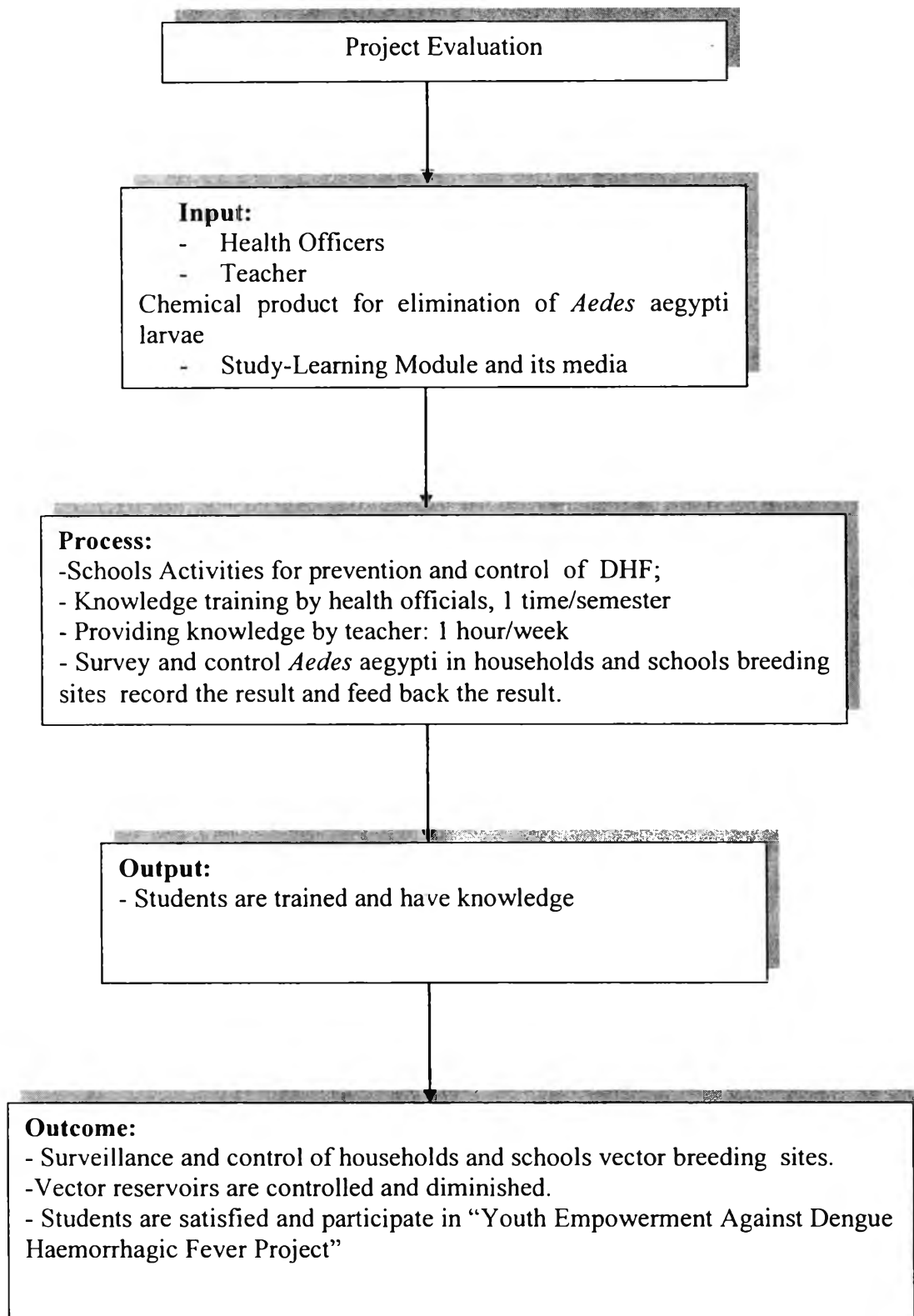


Figure 1: Conceptual Frame Work